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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,607	08/16/2001	George E. Bittner	050438-302286	9611
28264	7590	11/17/2003	EXAMINER	
MICHAEL P. WILLIAMS BOND, SCHOENECK & KING, PLLC ONE LINCOLN CENTER SYRACUSE, NY 13202			NGUYEN, HOANG M	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/931,607

Applicant(s)

BITTNER, GEORGE E.

Examiner

Hoang M Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 6-7, 10-13, 15-17, 19, 39-40, 44-45, 47-48, 50-53, 57, 59-61, 63-66, 70, 72-74, 76-79, 88 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Applicant's amendment dated October 09, 2003, has been fully considered.

Applicant has amended and included the limitation "allowing gravity to initiate and maintain the rotation" in the independent claims. A new ground of rejection has been made.

Applicant has argued that none of the references teach the concept of using weight shifts by means of weight of pistons. The Examiner disagrees. Schur clearly discloses pistons 16 which are shiftable and read on the claimed invention.

Applicant has argued that Schur does not teach the concept of fluid communication between the heating expansion and cooling expansion chambers. The Examiner agrees and the rejection of Schur on claims 15, 39, 66 have been withdrawn. However, Applicant is noted that claim 53 does not disclose that concept; so, the rejection based on claims 53 and its dependent claims have been maintained. Also, both Morgan and Yates disclose that concept. Furthermore, a new ground of rejection based on 35 USC 112, 2nd paragraph has been made because the claimed angle now is "less than 180 degrees apart".

Claims 15, 39, 63, 76 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In these claims, Applicant recites that the fluid communication between the heating

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chamber and cooling chamber are "less than 180 degrees apart". This concept is not taught in the disclosure. Note figures 2, 4, the angle is exactly 180 degrees apart.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 6-7, 10-13, 15-17, 19, 39-40, 44-45, 47-48, 50-53, 57, 59-61, 63-66, 70, 72-

74, 76-79, are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 4051678

(Yates) in view of U.S. 3984985 (Lapeyre).

Yates discloses a heat engine comprising a heating side expansion chambers , and cooling side expansion chamber, elastic walls in forms of diaphragms (24) for expanding and contracting in response to the temperatures, support member for supporting said chambers for rotations, inside each tank 22 is the refrigerant which can be expanded and contracted, and the weights of said liquid provide the shift off-center balance to rotate the whole apparatus. Pipes 34 for connecting and shifting fluid from one tank to the other. Regarding the concept of different output motions such as reciprocating, linear, it's well known to convert the output of the shaft to different motions. Yates does not disclose the self-starting feature. Lapeyre discloses that it's well known to mount the heating source 36 at one side therefore the impeller can be started without any external input force. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to mount the heat source of Yates at one side as taught

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by Lapeyre for the purpose of self starting the impeller if needed.

Claims 1-2, 6-7, 10-13, 15-17, 19, 39-40, 44-45, 47-48, 50-53, 57, 59-61, 63-66, 70, 72-74, 76-79, are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 4074534 (Morgan) in view of U.S. 3984985 (Lapeyre).

Morgan discloses a heat engine comprising a heating side expansion chambers , and cooling side expansion chamber, elastic walls in forms of diaphragms (30) for expanding and contracting in response to the temperatures, support member for supporting said chambers for rotations, inside each tank 21 is the refrigerant which can be expanded and contracted, and the weights of said liquid provide the shift off-center balance to rotate the whole apparatus. Pipes 22 for connecting and shifting fluid from one tank to the other. Regarding the concept of different output motions such as reciprocating, linear, it's well known to convert the output of the shaft to different motions. Morgan does not disclose the self-starting feature. Lapeyre discloses that it's well known to mount the heating source 36 at one side therefore the impeller can be started without any external input force. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to mount the heat source of Morgan at one side as taught by Lapeyre for the purpose of self starting the impeller if needed.

Claims 1-2, 6-7, 10-13, 16-17, 19, 53, 57, 59-61, 63, 88, are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 4121420 (Schur) in view of U.S. 3984985 (Lapeyre).

Schur discloses a heat engine comprising a heating side (40) expansion chambers (58), and cooling side (upper chamber) expansion chamber (52-54), elastic walls in forms of bellows (70-

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84) for expanding and contracting in response to the temperatures, support member 30 for supporting said chambers for rotations, inside each tank (50-64) is the refrigerant 94 which can be expanded and contracted, and the weights of said liquid provide the shift off-center balance to rotate the whole apparatus. Regarding the concept of different output motions such as reciprocating, linear, it's well known to convert the output of the shaft to different motions. Schur does not disclose the self-starting feature. Lapeyre discloses that it's well known to mount the heating source 36 at one side therefore the impeller can be started without any external input force. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to mount the heat source of Schur at one side as taught by Lapeyre for the purpose of self starting the impeller if needed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Nguyen whose telephone number is (703) 308-3477. The examiner can normally be reached on Monday--Thursday from 7:30 AM to 6:00 PM.

Any inquiry concerning any general questions regarding patent examining policies and procedures should be directed to Patent Assistance Center (PAC) at 800-PTO-9199 or (703)-308-HELP (703)-308-4357), or Customer Service of TC 3700 at (703) 306-5648.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion, can be reached on (703)-308-2623. The fax phone number for the Examiner is (703) 746-4559.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0861.



HOANG NGUYEN
PRIMARY EXAMINER
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Hoang Minh Nguyen
November 14, 2003

Continuation of Disposition of Claims: Claims pending in the application are 1,2,6,7,10-13,15-17,19,39,40,44,45,47,48,50-53,57,59-61,63-66,70,72-74,76-79 and 88.